



Periodic Review

2911 W Fort George Wright Dr

2911 W Fort George Wright Dr, Spokane, WA 99201
Facility Site ID: 18251, Cleanup Site ID: 13040

Toxics Cleanup Program, Eastern Region

Washington State Department of Ecology
Spokane, Washington

April 2023

Document Information

This document is available on the Department of Ecology's [2911 W Fort George Wright Dr cleanup site page](#).¹

Related Information

- Facility Site ID: 18251
- Cleanup Site ID: 13040

Contact Information

Toxics Cleanup Program

Eastern Regional Office
Ted Uecker, Site Manager
6501 N Monroe St
Spokane, WA 99205
Email: ted.uecker@ecy.wa.gov
Phone: 509-342-5564

Website: [Washington State Department of Ecology](#)²

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¹ <https://apps.ecology.wa.gov/cleanupsearch/site/13040>

² <https://ecology.wa.gov/About-us/Who-we-are/Our-Programs/Toxics-Cleanup>

³ <https://ecology.wa.gov/About-us/Accountability-transparency/Our-website/Accessibility>

Department of Ecology's Regional Offices

Map of Counties Served



Southwest Region 360-407-6300	Northwest Region 206-594-0000	Central Region 509-575-2490	Eastern Region 509-329-3400
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Region	Counties served	Mailing Address	Phone
Southwest	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum	PO Box 47775 Olympia, WA 98504	360-407-6300
Northwest	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom	PO Box 330316 Shoreline, WA 98133	206-594-0000
Central	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima	1250 W Alder St Union Gap, WA 98903	509-575-2490
Eastern	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman	4601 N Monroe Spokane, WA 99205	509-329-3400
Headquarters	Across Washington	PO Box 46700 Olympia, WA 98504	360-407-6000

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Introduction

The Washington State Department of Ecology (Ecology) reviewed post-cleanup site conditions and monitoring data to ensure human health and the environment are being protected at the 2911 W Fort George Wright Dr cleanup site (Site). Site cleanup was implemented under the Model Toxics Control Act (MTCA) regulations, Chapter 173-340 Washington Administrative Code (WAC). This is the first periodic review conducted for this Site.

Cleanup activities at this Site were completed under the Voluntary Cleanup Program (VCP) under project ID EA0172. Residual concentrations of lead, diesel- and oil-range petroleum hydrocarbons (DRPH and ORPH), and polycyclic aromatic hydrocarbons (PAHs) that exceeded MTCA cleanup levels remain on the property. The MTCA cleanup levels for soil and groundwater are established under [WAC 173-340-740](https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-740)⁴ and [WAC 173-340-720](https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-720),⁵ respectively.

Ecology determined institutional controls in the form of an environmental covenant would be required as part of the cleanup action for the Site. [WAC 173-340-420\(2\)](https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-420(2))⁶ requires Ecology to conduct a periodic review of certain sites every five years. For this Site, a periodic review is required because Ecology issued a no further action (NFA) opinion at the site and institutional controls were required as part of the cleanup action.

When evaluating whether human health and the environment are being protected, Ecology must consider the following factors (WAC 173-340-420(4)):

- a) The effectiveness of ongoing or completed cleanup actions, including the effectiveness of engineered controls and institutional controls in limiting exposure to hazardous substances remaining at the site
- b) New scientific information for individual hazardous substances or mixtures present at the site
- c) New applicable state and federal laws for hazardous substances present at the site
- d) Current and projected site and resource uses
- e) The availability and practicability of more permanent remedies
- f) The availability of improved analytical techniques to evaluate compliance with cleanup levels

Ecology publishes a notice of all periodic reviews in the *Site Register* and provides an opportunity for public comment.

⁴ <https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-740>

⁵ <https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-720>

⁶ <https://app.leg.wa.gov/wac/default.aspx?cite=173-340-420>

Summary of Site Conditions

Site description and history

The Site is located at 2911 West Fort George Wright Drive in the City of Spokane in Spokane County, Washington. The Site consists of two tax parcels owned by Copper River Apartments, LLC (parcel 25113.2101) and Catholic Housing Services of Eastern Washington (parcel 25113.2107) and contains a multi-family housing development and an undeveloped lot overlooking the Spokane River. The Site boundary is approximately 500 feet from the Spokane River.

The Site was previously owned by the Sisters of Holy Names and was operated as a convent beginning in 1968. Prior to development as a convent, the Site was part of the Fort George Wright Military Base and remained largely undeveloped but contained a skeet shooting range operated by the Spokane Gun Club from 1919 to 1949 as well as two unlined, undocumented landfills (referred to as the “old” and “new” landfills), two former bunker structures, and a former trash incinerator. Records indicate the landfills were mostly used for construction and household debris.

A vicinity map is in Appendix A, and a Site plan is in Appendix B.

Site investigations

Cascade Earth Sciences conducted a Phase I Environmental Site Assessment (ESA) in July 2014 and a Phase II ESA in May 2015. Shallow soil samples were collected from the two former landfills, the shooting range, the former bunker locations, ash deposits observed onsite, and downwind of the former incinerator. Analytical results indicated lead, DRPH, ORPH, and PAHs exceeded MTCA Method A soil cleanup levels for unrestricted land use in the former shooting range area. Samples from all other areas did not contain any contaminants of concern (COCs) exceeding cleanup levels.

In March 2016, Earth Solutions NW conducted a supplemental Phase II ESA, which consisted of 24 additional shallow soil samples within the former shooting range as well as deeper soil samples to define the vertical extent of soil contamination. Soil samples from 0.5 feet below ground surface (bgs) contained DRPH, ORPH, and/or lead exceeding cleanup levels, while samples collected from 2 feet bgs did not contain any COCs exceeding cleanup levels. Shallow samples from the former bunker areas contained lead and ORPH exceeding cleanup levels, and samples from the new landfill area contained ORPH and methylene chloride exceeding cleanup levels from 3 to 5 feet bgs.

Earth Solutions NW conducted a second supplemental Phase II ESA in April 2016 that identified lead, DRPH, and ORPH exceedances along the plateau ridge immediately east and northeast of the former shooting range.

Cleanup actions

In October 2016, Earth Solutions NW excavated approximately 8,204 tons of impacted soil from the former shooting range, plateau ridge, and new landfill areas. The impacted soil was transported and disposed at Waste Management's Graham Road Landfill in Medical Lake, Washington. Soils were excavated in the former shooting range to a depth of 2 feet bgs in 10-foot diameter increments, and within the new landfill area at depths ranging from 5 to 7 feet bgs in 10-foot diameter increments. Surficial clay pigeon debris was also removed from unexcavated areas where it was observed. A total of 84 confirmatory soil samples were collected from the excavations.

During excavation along the southern end of the former shooting range, clay pigeon debris, and lead- and petroleum-impacted soil were discovered in a sewer pipeline trench that intersected the shooting range and new landfill at depths ranging from 6 to 20 feet bgs. The section of pipeline extending north within the multi-family development was excavated along with impacted soil. All debris and soils were deposited within the new landfill area and capped with a geotextile fabric and 6 feet of clean imported soil.

Cleanup standards

Cleanup standards include cleanup levels, the location where these cleanup levels must be met (point of compliance), and any other regulatory requirements that apply to the Site.

[WAC 173-340-704](https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-704)⁷ states MTCA Method A may be used to establish cleanup levels at sites that have few hazardous substances, are undergoing a routine cleanup action, and where numerical standards are available for all indicator hazardous substances in the media for which the Method A cleanup level is being used. Method B may be used at any site and is the most common method for setting cleanup levels when sites are contaminated with substances not listed under Method A. Method C cleanup levels may be used to set soil and air cleanup levels at industrial sites.

MTCA Method A cleanup levels for unrestricted land use were determined to be appropriate for contaminants at this Site. The cleanup actions conducted at the Site were determined to be routine, few hazardous substances were found at the Site, and numerical standards were available in the MTCA Method A table for each hazardous substance. Table 1 contains the MTCA Method A cleanup levels for COCs at the Site.

⁷ <https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-704>

Table 1. Cleanup levels for soil contaminants

Contaminant	Soil cleanup level (mg/kg)
Lead	250
DRPH	2,000
ORPH	2,000
PAHs	0.1
Methylene Chloride	0.02

mg/kg = milligrams per kilogram

DRPH = diesel-range petroleum hydrocarbons

ORPH = oil-range petroleum hydrocarbons

PAHs = polycyclic aromatic hydrocarbons

The point of compliance is the area where the cleanup levels must be attained. For soil cleanup levels based on the protection of groundwater, as they are for this Site, the point of compliance is established as soils throughout the Site (standard point of compliance).

Environmental Covenant

Ecology determined that institutional controls would be required as part of the cleanup action to document the remaining contamination, protect the cleanup action, and protect human health and the environment. On March 20, 2017, institutional controls in the form of an [environmental covenant](#)⁸ (Covenant) were recorded for the Site under recording number 6586965 in Spokane County, Washington.

The Covenant recorded for the Site imposes the following limitations.

Section 1. General Restrictions and Requirements.

The following general restrictions and requirements shall apply to the Property:

- a. **Interference with Remedial Action.** The Grantor shall not engage in any activity on the Property that may impact or interfere with the remedial action and any operation, maintenance, inspection or monitoring of that remedial action without prior written approval from Ecology.
- b. **Protection of Human Health and the Environment.** The Grantor shall not engage in any activity on the Property that may threaten continued protection of human health or the environment without prior written approval from Ecology. This includes, but is not limited to, any activity that results in the release of residual contamination that was contained as a part of the remedial action or that exacerbates or creates a new exposure to residual contamination remaining on the Property.

⁸ <https://apps.ecology.wa.gov/cleanupsearch/document/63382>

- c. **Continued Compliance Required.** Grantor shall not convey any interest in any portion of the Property without providing for the continued adequate and complete operation, maintenance and monitoring of remedial actions and continued compliance with this Covenant.
- d. **Leases.** Grantor shall restrict any lease for any portion of the Property to uses and activities consistent with this Covenant and notify all lessees of the restrictions on the use of the Property.
- e. **Preservation of Reference Monuments.** Grantor shall make a good faith effort to preserve any reference monuments and boundary markers used to define the areal extent of coverage of this Covenant. Should a monument or marker be damaged or destroyed, Grantor shall have it replaced by a licensed professional surveyor within 30 days of discovery of the damage or destruction.

Section 2. Specific Prohibitions and Requirements.

In addition to the general restrictions in Section 1 of this Covenant, the following additional specific restrictions and requirements shall apply to the Property:

- a. **Containment of soil/waste materials.** The remedial action for the Property is based on containing contaminated soil and debris under a cap consisting of geotextile fabric and at least 6 feet of soil. The geotextile fabric is located on the Property and partially on the adjacent property (Lot 1 of the Sisters of Holy Names Final City Short Plat Z16-659FPLT) as described and illustrated in Exhibit C; however, this Covenant does not (and is not intended to) apply to Lot 1 of the Sisters of Holy Names Final City Short Plat Z16-659FPLT. The primary purpose of this cap is to prevent direct exposure to hazardous substances under the cap. Under the terms of this covenant, the following restrictions shall apply only within the portion of the Property described and illustrated in Exhibit D (the "Restricted Area"):

Any activity on the Restricted Area that will compromise the integrity of the cap, including: drilling; digging; piercing the cap with sampling device, post, stake or similar device; grading; excavation; installation of underground utilities; removal of the cap; or, application of loads in excess of the cap load bearing capacity, is prohibited without prior written approval by Ecology. The Grantor shall report to Ecology within forty-eight (48) hours of the discovery of any damage to the cap. Unless an alternative plan has been approved by Ecology in writing, the Grantor shall promptly repair the damage and submit a report documenting this work to Ecology within thirty (30) days of completing the repairs. The Grantor covenants and agrees that it shall annually, or at another time as approved in writing by Ecology, inspect the cap and report within thirty (30) days of the inspection the condition of the cap and any changes to the cap that would impair its performance.

- b. **Stormwater facilities.** To minimize the potential for mobilization of contaminants remaining in the soil on the Property, no stormwater infiltration facilities or ponds shall be constructed within the Restricted Area. Additionally, the Restricted Area should be graded in such a way that runoff from neighboring properties does not pond, gather, or infiltrate on the capped

area. All stormwater catch basins, conveyance systems, and other appurtenances located within this area shall be of water-tight construction.

- c. **c. Other.** Periodic reviews will be conducted on the Property every five (5) years as detailed in WAC 173-340-420.

Section 3. Access.

- a. The Grantor shall maintain clear access to all remedial action components necessary to construct, operate, inspect, monitor and maintain the remedial action.
- b. The Grantor freely and voluntarily grants Ecology and its authorized representatives, upon reasonable notice, the right to enter the Property at reasonable times to evaluate the effectiveness of this Covenant and associated remedial actions, and enforce compliance with this Covenant and those actions, including the right to take samples, inspect any remedial actions conducted on the Property, and to inspect related records.
- c. No right of access or use by a third party to any portion of the Property is conveyed by this instrument.

Please refer to the Covenant for the full list of restrictions and requirements.

Periodic Review

Effectiveness of completed cleanup actions

During the Site visit Ecology conducted on April 12, 2023, the Site appeared to comply with the restrictions in the Covenant. The Site is operating as a multi-family housing development, and the restricted area comprises an empty lot adjacent to one of the housing units. A photo log is in Appendix C.

Direct contact

The cleanup actions were intended to eliminate exposure to contaminated soil at the Site. Exposure pathways to contaminated soils and debris by ingestion and direct contact were reduced by capping contaminated soils with a geotextile fabric and a minimum of 6 feet of clean soil.

The cap appears to be in satisfactory condition, with no signs of excavation, erosion, or other damage that would compromise the integrity of the cap. There were signs of unintended land use, such as construction material stockpiles and illegally disposed garbage and other debris throughout the Site; however, Ecology determined these activities do not threaten the protectiveness of the remedial actions. No repair, maintenance, or contingency actions are required at this time.

Institutional controls

Institutional controls in the form of a Covenant were implemented at the Site in 2017. The Covenant remains active and discoverable through the Spokane County Auditor's Office. Ecology found no evidence a new instrument has been recorded that limits the effectiveness or applicability of the Covenant. This Covenant prohibits activities that will result in the release of contaminants contained as part of the cleanup action and prohibits any use of the property that is inconsistent with the Covenant, unless approved by Ecology in advance. This Covenant ensures the long-term integrity of the cleanup action will be protected.

New scientific information for individual hazardous substances or mixtures present at the Site

There is no new relevant scientific information for the hazardous substances remaining at the Site.

New applicable state and federal laws for hazardous substances present at the Site

There are no new applicable or relevant state or federal laws for hazardous substances remaining at the Site.

Current and projected Site and resource uses

The Site is used for residential purposes. There have been no changes in current or projected future Site or resource uses. The current Site use is not likely to have a negative impact on the protectiveness of the cleanup action.

Availability and practicability of more permanent remedies

The remedy implemented included containing hazardous substances, and it continues to be protective of human health and the environment. While more permanent remedies may be available, they are still not practicable at this Site.

Availability of improved analytical techniques to evaluate compliance with cleanup levels

The analytical methods used at the time of the cleanup action were capable of detection below the selected MTCA cleanup levels. The presence of improved analytical techniques would not affect decisions or recommendations made for the Site.

Conclusions

- The cleanup actions completed at the Site appear to be protective of human health and the environment.
- Soil cleanup levels have not been met at the Site; however, the cleanup action is determined to comply with cleanup standards under WAC 173-340-740(6)(f), since the long-term integrity of the containment system is ensured and the requirements for containment technologies have been met.
- The Covenant for the property is in place and is effective in protecting human health and the environment from exposure to hazardous substances and the integrity of the cleanup action.

Based on this periodic review, Ecology determined the requirements of the Covenant are being followed. No additional cleanup actions are required by the property owner at this time. The property owner is responsible for continuing to inspect the Site to ensure the integrity of the cleanup action is maintained.

Next review

Ecology will schedule the next review for the Site five years from the date of this periodic review. If additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years after those activities are completed.

References

Ecology. Site Visit. April 12, 2023.

Ecology. "No Further Action Determination." April 14, 2017.

Ecology. *Environmental Covenant 6586965*. March 20, 2017.

Earth Solutions NW, LLC. *Maintenance & Repair Plan*. March 2017.

Earth Solutions NW, LLC. *Cleanup Summary Report*. January 13, 2017.

Earth Solutions NW, LLC. *Cleanup Action Plan*. September 9, 2016.

Earth Solutions NW, LLC. *Second Supplemental Phase II Environmental Site Assessment*. April 5, 2016.

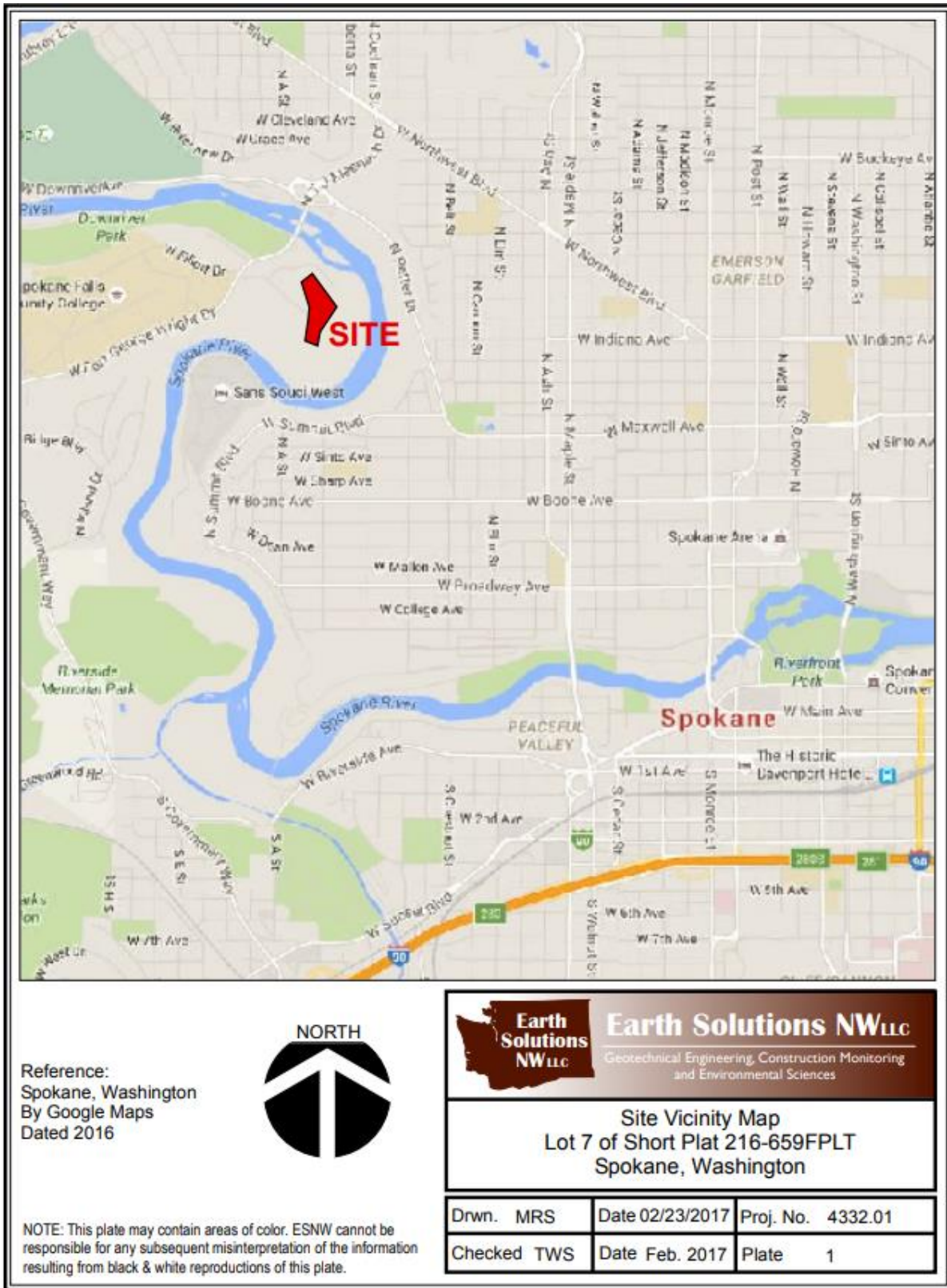
Earth Solutions NW, LLC. *Supplemental Phase II Environmental Site Assessment*. March 9, 2016.

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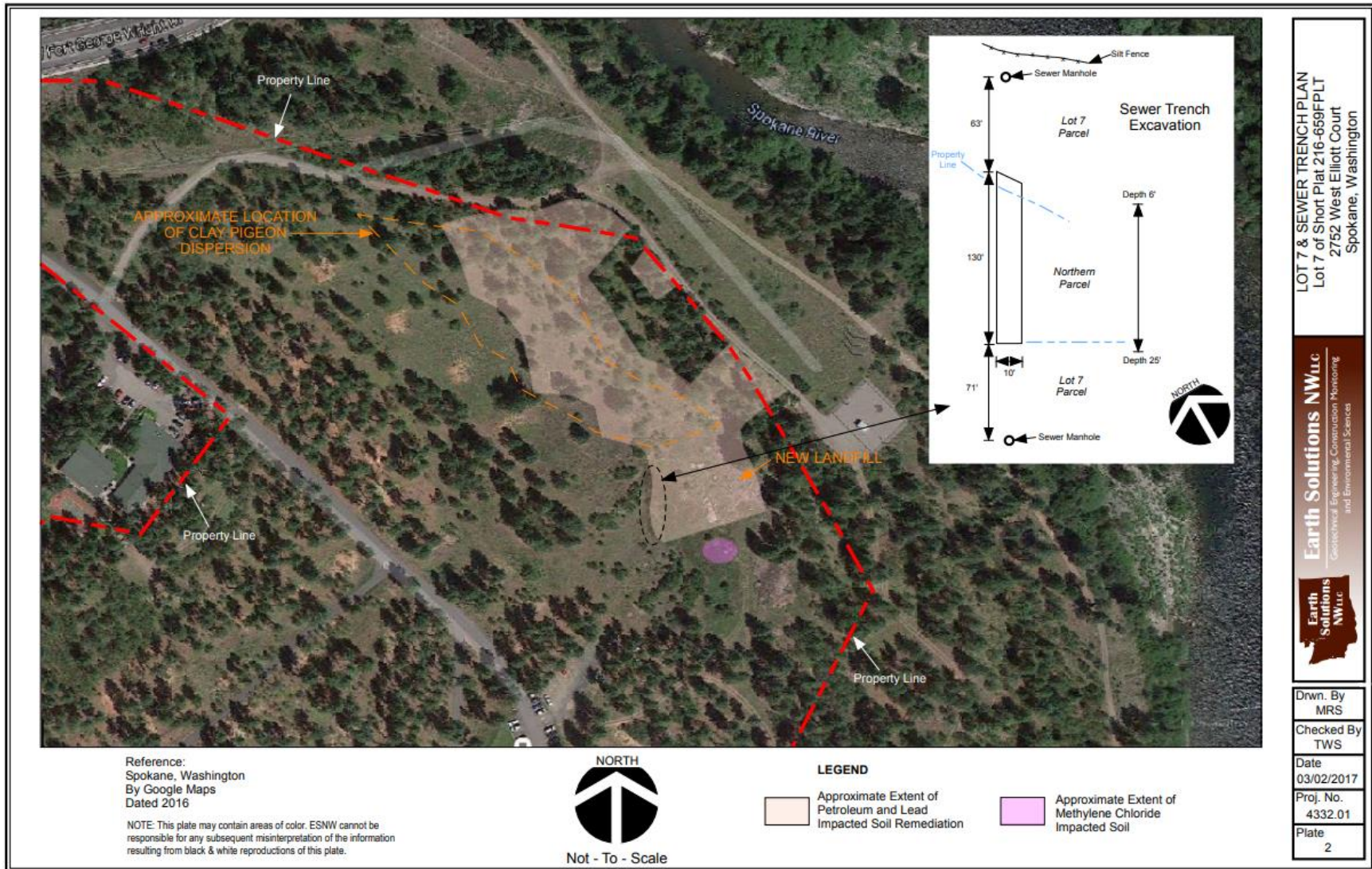
Cascade Earth Sciences. *Phase I Environmental Site Assessment*. July 29, 2014.

Herrera. *Preliminary Assessment, George Wright Air Force Base, Spokane, WA*. January 20, 2005.

Appendix A. Vicinity Map



Appendix B. Site Plan



Appendix C. Photo Log

Photo 1: Empty lot adjacent to the residential property, from the southwest



Photo 2: Construction material stockpiles in the restricted area, from the southeast



Photo 3: Garbage and debris piles in the restricted area, from the west



Photo 4: The restricted area, from the north

